

Project 2

Developing weather/climate indicators of relevance for WT

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Wildlife Trusts: Dave Miller (Lincoln WT), Ben Siggery (Surrey WT), Debbie Lewis (BBOWT), Steve Masters (Dorset WT), Viki Webster (Surrey WT), Juliet Hynes (Glouc WT), Lizzie Laybourne (Hants&IoW WT), Susan Hartland-Smith (Warks WT), Ben Smith (NWales WT), Heinz Traut (NWales WT), Nigel Doar (TWT), and many more...

Scene setting: Many ideas

Sea Level	Sea level rise change/mapping
Coastal Rainfall	East Lincolnshire coast rainfall patterns/extremes
Butterflies	Are Butterfly movements observed on the Chilterns Chalk grassland (inc south facing slope influence) related to climate variations?
Wetlands	How are Fen wetlands impacted by lack of rainfall, with a view to understanding how to manage these systems
Hay Meadows	Relationships between flowering times of hay meadow species and climate variables/extremes - this will influence when hay cuts should be made
Climate Analogues	Climate analogues – what climate/locations would be similar to WT sites under future climate change
Bespoke Indicators	Bespoke current climate indicators for WT sites, e.g. to explore prolonged drought periods, extremes...
Orchards	Traditional orchards relatively quickly provide habitat for saproxylic beetles and other tree hollow users. Stone fruits are valuable for this but the market is limited. Is it currently (or when might it be) viable to grow orchards of more tender stone fruits in UK (peaches, nectarines, apricots, almonds)?

Coastal Rainfall: Anderby Marsh wetland site

Emma Corrigan (Met Office)

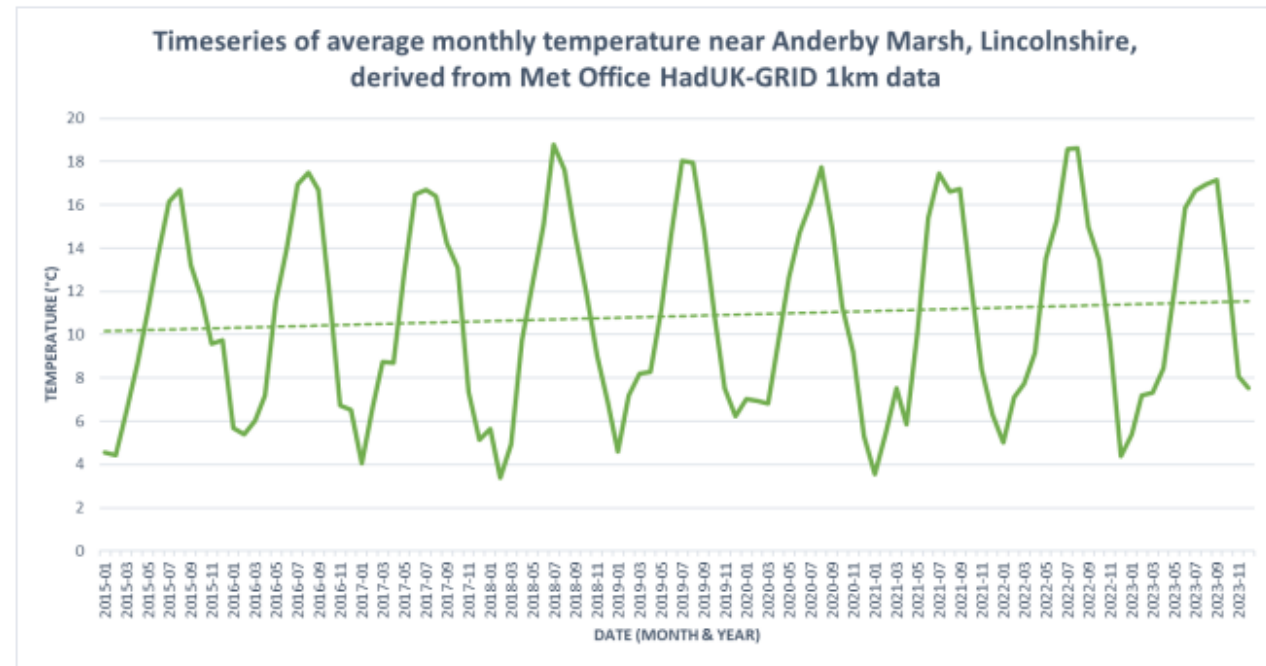
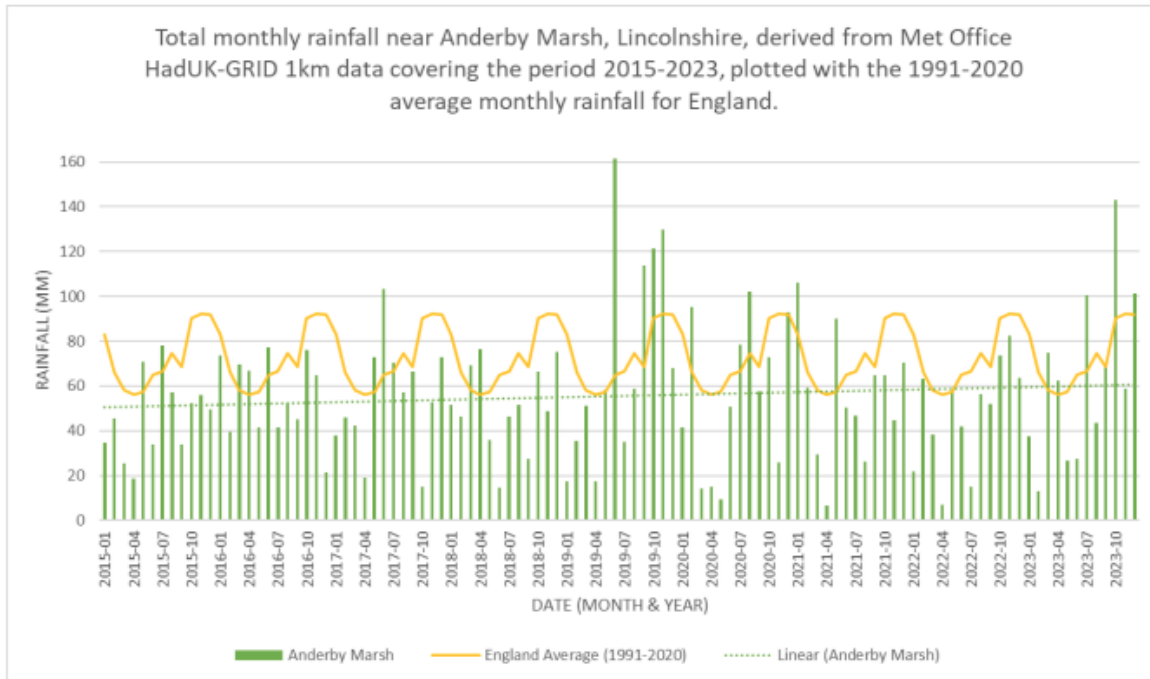
Dave Miller (Lincoln WT)



Emma Corrigan

Anderby Marsh wetland site

- Site completed: October 2021.
- Wanted records to look at the water holding improvements



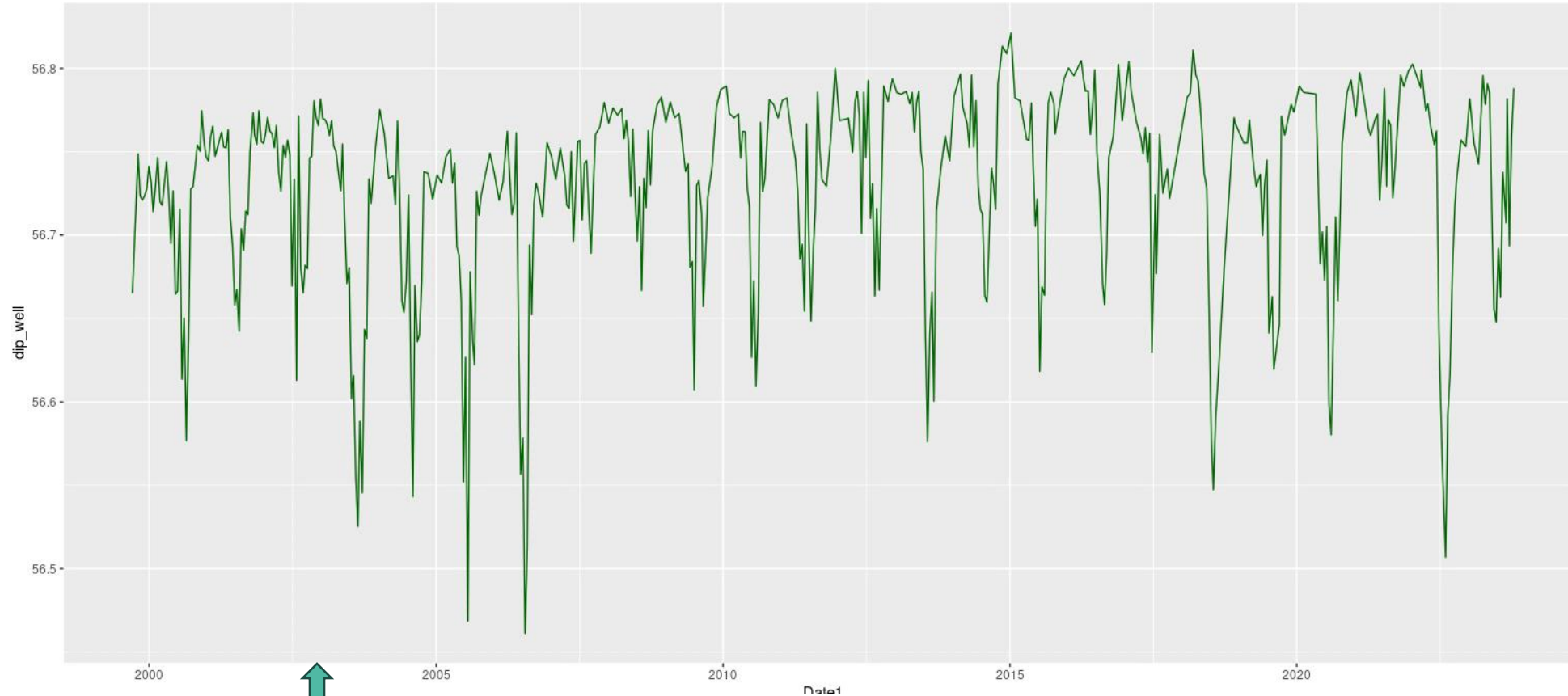
Wetlands: Folly bog

Kate Brown – Met Office

Ben Siggery – Surrey WT

Debbie Lewis - BBOWT

Dipwell data – Folly bog



Wetter

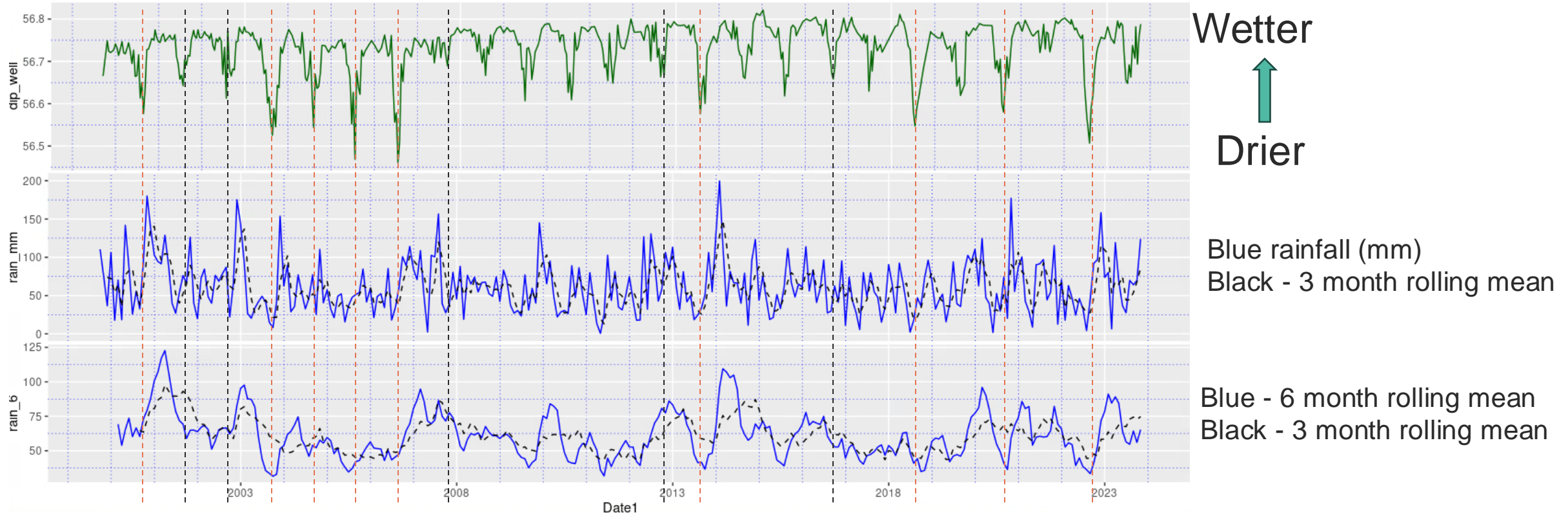
Drier

Burning

Different recording periods used.

Corresponding monthly values of dipwell data and precipitation metrics

Dipwell, and rain-lagged plots (0, 3: months), (6 and 12 months)



Difficult to see any simple relationships but there could be an accumulative effect

How many months of data to use?

- Correlations (Spearman's rank correlation)
- Gives a value between 1 and -1
- Returns a high value when relationships between two variables are similar, 0 for no relationship and -1 for high dissimilarity.

Accumulated rainfall over (months)	1	3	4	5	6	7	8	12
Dipwell measurement	0.38	0.48	0.50	0.49	0.45	0.38	0.29	0.23

Some moderate relationship with 3 to 6 month accumulations.